

## WRD Scientific and Technical Employee Development (STED) Committee

### Our charge:



- Provide guidance and feedback on employee technical development to WRD and OED
- Ensure that employees have the necessary technical skills to:
  - continue the scientific excellence of the water resources programs within the USGS,
  - meet the challenges of new science directions, and
  - accomplish the mission of the USGS

### Our mission:

- Provide the leadership necessary to guide the design and maintenance of a coordinated scientific and technical employee development program for WRD staff

*We believe an effective employee development program provides opportunities for individuals to improve employee performance and enhance skills and capabilities that will assist them in maximizing their full potential.*

### Our members (total of 12):

- Rotational water science center members represent:
  - Studies Section Chiefs, Center Directors, Hydrologic Technicians, NRP, IT Specialists, Data Chiefs
- Rotational discipline office members represent:
  - OSW, OGW, OWQ, NWIS
- Permanent members represent:
  - NTC, Senior Staff



### Our short-term goals:

- Continue to develop, populate, maintain, and promote the STED web page as the primary source of STED communication to WRD personnel.

- Develop
- Populate
- Maintain
- Promote



[http://training.usgs.gov/STED/STED\\_Index.html](http://training.usgs.gov/STED/STED_Index.html)

### Our short-term goals:

- Continue to promote Technology Enabled Learning and establish an electronic learning repository for WRD personnel featuring links to a wide variety of instructional and informational material.

- New and existing courses
- Presentations
- How-to videos
- Classroom training
- Online training
- Blended training



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- Continue to develop, populate, maintain, and promote the STED web page as the primary source of STED communication to WRD personnel.
- Continue to promote Technology Enabled Learning and establish an electronic learning repository for WRD personnel featuring links to a wide variety of instructional and informational material.
- Assist in planning and development of an "Essential and Recommended" training program for all surface-water hydrographers in WRD.

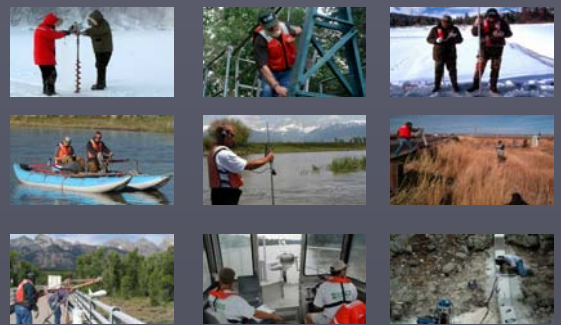
#### Our long-term goals:

- Promote the development of "Essential and Recommended" training programs for the ground-water and water-quality disciplines for use by all scientific and technical WRD employees.
- Investigate opportunities for a WRD advanced scientific education program to meet USGS mission goals and encourage career development.
- Consider the advantages of a regionally based cooperative education program with selected colleges and universities as a means to promote training of potential future scientific and technical WRD employees.

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### Surface-Water Training Update



WRD Demographics indicate that 30% of hydrologic technicians can retire in the next 5 years!



Brought to our attention by the Central Region Advisory Committee on Data (CRACD)

### Discussions between CRACD, OSW and STED led to the following activities:

- A mandatory class for all new hydrographers



- Developing a formal Surface-Water Training Schedule

Month/Week	1	2	3	4
October	#1 (Records) at NITC or Region			
November				
December	#13 (ADCP Mass.)			

- STED is working to develop and catalog TEL opportunities



## The SW Procedures Class will be a "Blended-Learning" Class

**Surface-Water Procedures and Policies Training Class**

Office of Surface Water • TWRS • WSP2175 • ADAPS • Accounting • Training Center • Technical Memory

**Agenda**

- Navigation Tutorial
- Class Overview
- History of USGS Streamgaging Program
  - Gage To Page Tradition
- Monitoring Program
  - Stage Record
    - Stage vs Gage Height
    - Datum
    - Types of gages
    - Stage Records
    - Gage Housers
      - Reference vs Auxiliary Gages
  - Hydroacoustic Principles
    - Dobbler Shift
    - Index-Velocity use at gages
  - Discharge Measurements
    - Mid-section Velocity Area Method
    - Mechanical meters
    - FlowTrakers
    - ADCPs
    - Ice Measurements
    - Water Maintenance
  - Indirect Measurements
    - Stage Discharge Relations
  - Surface Water Records
    - Continuous Records
    - SWViewer and Other Scripts
  - Gaging Station Electronics
    - Basic Concepts
    - DCP
    - Data Loggers
    - Gaging Station Electronics
    - Safety
    - Tests

Introduction to Surface-Water Procedure and Policies




## We have applied for Human Resources Initiative funds to help fund development of this new class

**USGS Surface Water Procedures and Policies Training Class**

USGS Home Contact USGS Search USGS

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- We know of no funds within WRD earmarked for maintaining or developing training

The new training schedule will mostly involve developing a rigid schedule for classes that are already being offered

Month/Week	1	2	3	4
October		#7 (Records) at NTC or Region		
November				
December	#13 (ADCP Meas.)			
January		#10 (Basic Hydraulics) at NTC	#14 (Records, ADCPs and Index-velocity Methods)	
February	#7 (Records) at Gateway	#6 (Hydraulics for Hydrographs) at NTC	Streamflow Records Computation using Hydroacoustic Current Meters and Index-velocity Methods	
March	#13 (ADCP Meas.)	#7 (Records) at NTC or Region		
April			#2 (Field Methods) at NTC	#3 (Electronics) at NTC
May	#4 (DCPs) at HIF	#2 (Field Methods) at Gateway		
June	#9 (Indirects) at NTC or Region			
July			#8 (Levels) at NTC or Region	
August	#5 (Ratings) at NTC or Region	#11 (Hyd. Analysis-1) at NTC	#12 (Hyd. Analysis-2) at NTC	
September			#3 (Electronics) at HIF	#2 (Field Methods) at HIF

STED is reconstructing their web page to be "one-stop shopping" for TEL classes

**USGS**

Scientific and Technical Employees Development (STED) Committee (This page is under construction)

Office of Surface Water • Office of Ground Water • Office of Water Quality • BGS Learn • GED Course Catalog • STED Home

**STED**

The Scientific and Technical Employees Development (STED) Committee is a Water Resources Discipline (WRD) committee whose charge is to provide guidance and feedback on employee development within the WRD. (See More)

**More STED Information**

- Members
- Charter
- Goals
- Minutes

Wading measurement training, which now includes how to use FlowTrakers, is available on-line.

**Technology Enabled**

- Surface Water
- Water Quality
- Ground Water
- Instrumentation



## All Surface-Water "On Demand" training, which has been summarized in a recent Fact Sheet, will be cataloged on the new STED page

**USGS**

Surface-Water Techniques: On Demand Training Opportunities

Fact Sheet 2007-3099



See:  
<http://pubs.usgs.gov/fis/2007/3099/>

We could use really use your help compiling Videos, Web-based materials and CDs that could provide "TEL-like" training opportunities

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**Surface Water**

Value	Web-Based	CDs
None yet	<ul style="list-style-type: none"> <li>USGS Classes</li> <li>Surface-Water Field Methods</li> <li>Measurement of Stream Discharge by Weir</li> <li>Stage Discharge Relations - Basic Concepts (USGS version/USGS employees only)</li> <li>Calibration Safety - Pre-view Inspection</li> <li>Overview of Data Collection at Gaging Stations</li> <li>Overview of roughness coefficients in various U.S. rivers</li> <li>Libbing and extending link values in the Automated Data Processing System (ADAPS)</li> <li>Classes provided by the Hydrological Education and Training web site</li> <li>Rainfall Processes</li> <li>Understanding the hydrologic cycle</li> <li>Flood Frequency Analysis</li> </ul>	<ul style="list-style-type: none"> <li>Stream Discharge Measurement's Under the Cover</li> <li>Stream Discharge Measurement's From Canyons</li> <li>Levels at Streamflow Gaging Stations - A CD-ROM Based Training CD</li> <li>Introduction to Suspended Sediment Sampling</li> </ul>

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